BRAIN RESEARCH

VOL. 649 NOS. 1/2 **CONTENTS** **27 JUNE 1994**

Cited in Biological Abstracts (BIOSIS) – Chem. Abstracts – Index Medicus (MEDLINE) – Current Contents (Life Sci.) – Excerpta Medica (EMBASE) – Psychological Abstracts (PsycINFO) – Pascal et Francis (INIST-CNRS) – RIS (Reference Update) – Current Awareness in Biological Science (CABS)

Editorial Announcement v

Announcement from the Publisher vi

Guidelines for the Submission of Manuscripts vii

Research Reports

^{31}P NMR phospholipid characterization of intracranial tumors
T.E. Merchant, L.T.M. Van der Ven, B.D. Minsky, P.M. Diamantis, R. Delapaz, J. Galicich and T. Glonek (USA, Netherlands) 1

Differential effects of ginsenoside Rb1 and malonylginsenoside Rb1 on long-term potentiation in the dentate gyrus of rats
K. Abe, S.I. Cho, I. Kitagawa, N. Nishiyama and H. Saito (Japan) 7

Mild intraischemic hypothermia suppresses consumption of endogenous antioxidants after temporary focal ischemia in rats
H. Karibe, S.F. Chen, G.J. Zarow, J. Gafni, S.H. Graham, P.H. Chan and P.R. Weinstein (USA) 12

Subcutaneous formalin produces centrifugal hyperalgesia at a non-injected site via the NMDA–nitric oxide cascade
E.P. Wiertelak, L.E. Furness, R. Horan, J. Martinez, S.F. Maier and L.R. Watkins (USA) 19

Effect of repeated novel stressors on depressive behavior and brain norepinephrine receptor system in Sprague–Dawley and Wistar Kyoto (WKY) rats
S.M. Tejani-Butt, W.P. Paré and J. Yang (USA) 27

NADPH-diaphorase histochemistry and nitric oxide synthase activity in deutocerebrum of the crayfish, *Pacifastacus leniusculus* (crustacea, decapoda)
K.U.I. Johansson and M. Carlberg (Sweden) 36

Pharmacological characterisation of excitatory synaptic transmission in the cat red nucleus in vivo
J.D.M. Qume and N.C. Harris (UK) 43

Insulin-like growth factor II promotes in vitro cholinergic development of mouse septal neurons: comparison with the effects of insulin-like growth factor I
Y. Konishi, K. Takahashi, D.-H. Chui, R.G. Rosenfeld, M. Himeno and T. Tabira (Japan, USA) 53

Formalin induced FOS-like immunoreactive neurons in the trigeminal spinal caudal subnucleus project to contralateral parabrachial nucleus in the rat
L.G. Wang, H.M. Li and J.S. Li (People's Republic of China) 62

Closely spaced recurrent hippocampal seizures elicit two types of heightened epileptogenesis: a rapidly developing, transient kindling and a slowly developing, enduring kindling
E.W. Lothman and J.M. Williamson (USA) 71

Alterations in light-evoked dopamine metabolism in dystrophic retinas of mutant rds mice
I. Nir and P.M. Iuvone (USA) 85

Dopamine receptor distribution in the rat CNS: elucidation using anti-peptide antisera directed against D_{1A} and D_3 subtypes
M.A. Ariano and D.R. Sibley (USA) 95

Effect of dizocilpine (MK-801) on analgesia and tolerance induced by U-50,488H, a κ-opioid receptor agonist, in the mouse
H.N. Bhargava and S.N. Thorat (USA) 111

Postmortem stability of mRNA for glucocorticoid and mineralocorticoid receptor in rodent brain
D.M. Wetzel, M.C. Bohn and R.W. Hamill (USA) 117

Selective expression of interleukin-10 gene within glioblastoma multiforme
T. Nitta, M. Hishii, K. Sato and K. Okumura (Japan) 122

Stimulation by nicotine of the spontaneous release of [^{3}H]γ-aminobutyric acid in the substantia nigra and in the globus pallidus of the rat
N. Kayadjanian, S. Rétaux, A. Menétrey and M.-J. Besson (France) 129

Effect of salivation on neural taste responses in freely moving rats: analyses of salivary secretion and taste responses of the chorda tympani nerve
R. Matsuo, T. Yamamoto, A. Ikehara and O. Nakamura (Japan) 136

Neonatal guanethidine treatment alters endoneurial but not dorsal root ganglion perfusion in the rat
D.W. Zochodne and L.T. Ho (Canada) 147

Effects of $GABA_B$ activation and inhibition on vestibulo-ocular and optokinetic responses in the pigmented rat
M. Niklasson, R. Tham, B. Larsby and B. Eriksson (Sweden) 151

Three distinct subpopulations of GABAergic neurons in rat frontal agranular cortex
Y. Kubota, R. Hattori and Y. Yui (Japan) 159

(contents continued on p. 360)

0006-8993(19940627)649:1/2;1-F

BRAIN RESEARCH

VOL. 649 NOS. 1/2 **CONTENTS** **27 JUNE 1994**

Cited in Biological Abstracts (BIOSIS) – Chem. Abstracts – Index Medicus (MEDLINE) – Current Contents (Life Sci.) – Excerpta Medica (EMBASE) – Psychological Abstracts (PsycINFO) – Pascal et Francis (INIST-CNRS) – RIS (Reference Update) – Current Awareness in Biological Science (CABS)

Editorial Announcement v

Announcement from the Publisher vi

Guidelines for the Submission of Manuscripts vii

Research Reports

^{31}P NMR phospholipid characterization of intracranial tumors
T.E. Merchant, L.T.M. Van der Ven, B.D. Minsky, P.M. Diamantis, R. Delapaz, J. Galicich and T. Glonek (USA, Netherlands) 1

Differential effects of ginsenoside Rb1 and malonylginsenoside Rb1 on long-term potentiation in the dentate gyrus of rats
K. Abe, S.I. Cho, I. Kitagawa, N. Nishiyama and H. Saito (Japan) 7

Mild intraischemic hypothermia suppresses consumption of endogenous antioxidants after temporary focal ischemia in rats
H. Karibe, S.F. Chen, G.J. Zarow, J. Gafni, S.H. Graham, P.H. Chan and P.R. Weinstein (USA) 12

Subcutaneous formalin produces centrifugal hyperalgesia at a non-injected site via the NMDA–nitric oxide cascade
E.P. Wiertelak, L.E. Furness, R. Horan, J. Martinez, S.F. Maier and L.R. Watkins (USA) 19

Effect of repeated novel stressors on depressive behavior and brain norepinephrine receptor system in Sprague–Dawley and Wistar Kyoto (WKY) rats
S.M. Tejani-Butt, W.P. Paré and J. Yang (USA) 27

NADPH-diaphorase histochemistry and nitric oxide synthase activity in deutocerebrum of the crayfish, *Pacifastacus leniusculus* (crustacea, decapoda)
K.U.I. Johansson and M. Carlberg (Sweden) 36

Pharmacological characterisation of excitatory synaptic transmission in the cat red nucleus in vivo
J.D.M. Qume and N.C. Harris (UK) 43

Insulin-like growth factor II promotes in vitro cholinergic development of mouse septal neurons: comparison with the effects of insulin-like growth factor I
Y. Konishi, K. Takahashi, D.-H. Chui, R.G. Rosenfeld, M. Himeno and T. Tabira (Japan, USA) 53

Formalin induced FOS-like immunoreactive neurons in the trigeminal spinal caudal subnucleus project to contralateral parabrachial nucleus in the rat
L.G. Wang, H.M. Li and J.S. Li (People's Republic of China) 62

Closely spaced recurrent hippocampal seizures elicit two types of heightened epileptogenesis: a rapidly developing, transient kindling and a slowly developing, enduring kindling
E.W. Lothman and J.M. Williamson (USA) 71

Alterations in light-evoked dopamine metabolism in dystrophic retinas of mutant rds mice
I. Nir and P.M. Iuvone (USA) 85

Dopamine receptor distribution in the rat CNS: elucidation using anti-peptide antisera directed against D_{1A} and D_3 subtypes
M.A. Ariano and D.R. Sibley (USA) 95

Effect of dizocilpine (MK-801) on analgesia and tolerance induced by U-50,488H, a κ-opioid receptor agonist, in the mouse
H.N. Bhargava and S.N. Thorat (USA) 111

Postmortem stability of mRNA for glucocorticoid and mineralocorticoid receptor in rodent brain
D.M. Wetzel, M.C. Bohn and R.W. Hamill (USA) 117

Selective expression of interleukin-10 gene within glioblastoma multiforme
T. Nitta, M. Hishii, K. Sato and K. Okumura (Japan) 122

Stimulation by nicotine of the spontaneous release of [^{3}H]γ-aminobutyric acid in the substantia nigra and in the globus pallidus of the rat
N. Kayadjanian, S. Rétaux, A. Menétrey and M.-J. Besson (France) 129

Effect of salivation on neural taste responses in freely moving rats: analyses of salivary secretion and taste responses of the chorda tympani nerve
R. Matsuo, T. Yamamoto, A. Ikehara and O. Nakamura (Japan) 136

Neonatal guanethidine treatment alters endoneurial but not dorsal root ganglion perfusion in the rat
D.W. Zochodne and L.T. Ho (Canada) 147

Effects of $GABA_B$ activation and inhibition on vestibulo-ocular and optokinetic responses in the pigmented rat
M. Niklasson, R. Tham, B. Larsby and B. Eriksson (Sweden) 151

Three distinct subpopulations of GABAergic neurons in rat frontal agranular cortex
Y. Kubota, R. Hattori and Y. Yui (Japan) 159

(contents continued on p. 360)

0006-8993(19940627)649:1/2;1-F

(contents continued)

Interaction between 5-HT_{1A} and nicotinic cholinergic receptors in the regulation of water maze navigation behavior
M. Riekkinen, R. Tolonen and P. Riekkinen Jr. (Finland) 174
Anandamide, a naturally-occurring agonist of the cannabinoid receptor, blocks adenylate cyclase at the frog neuromuscular junction
W. Van der Kloot (USA) 181
Tau immunoreactivity and SDS solubility of two populations of paired helical filaments that differ in morphology
H. Ksiezak-Reding, K. Morgan and D.W. Dickson (USA) 185
Expression of Bcl-2 protein in murine neural cells in culture
M. Mizuguchi, K. Ikeda, M. Asada, S. Mizutani and S. Kamoshita (Japan) 197
Utilization of the resolved L-isomer of 2-amino-6-phosphonohexanoic acid (L-AP6) as a selective agonist for a quisqualate-sensitized site in hippocampal CA1 pyramidal neurons
M.K. Schulte, R.J. Roon, D.J. Chalmers, D.C. Sunter and J.F. Koerner (USA, UK) 203
Evidence for functionally important adenosine A_{2a} receptors in the rat hippocampus
R.A. Cunha, B. Johansson, I. Van der Ploeg, A.M. Sebastião, J.A. Ribeiro and B.B. Fredholm (Portugal, Sweden) 208
The effects of amfonelic acid, a dopamine uptake inhibitor, on methamphetamine-induced dopaminergic terminal degeneration and astrocytic response in rat striatum
C. Pu, J.E. Fisher, G.D. Cappon and C.V. Vorhees (USA) 217
Brain lesions induced by specific and non-specific inhibitors of sodium-potassium ATPase
G.J. Lees and W. Leong (New Zealand) 225
Corticosteroid receptor-dependent modulation of calcium currents in rat hippocampal CA1 neurons
H. Karst, W.J. Wadman and M. Joëls (Netherlands) 234
NMDA and carbachol but not AMPA affect differently the release of [^{3}H]GABA in striosome- and matrix-enriched areas of the rat striatum
T. Galli, F. Artaud, Y. Torrens, G. Godeheu, M. Desban, J. Glowinski and A. Chéramy (France) 243
Hyperthermia complicates middle cerebral artery occlusion induced by an intraluminal filament
Q. Zhao, H. Memezawa, M.-L. Smith and B.K. Siesjö (Sweden) 253
Nerve growth factor: a mitogenic signal for retinal Müller glial cells
T. Ikeda and D.G. Puro (USA) 260
Regulation of interleukin-1 receptors and hypothalamic-pituitary-adrenal axis by lipopolysaccharide treatment in the mouse
T. Takao, H. Nakata, C. Tojo, H. Kurokawa, T. Nishioka, K. Hashimoto and E.B. De Souza (Japan, USA) 265
State dependency of the effects of microinjection of cholinergic drugs into the nucleus pontis oralis
F. López-Rodríguez, K. Kohlmeier, F.R. Morales and M.H. Chase (USA) 271
Microdialysis measurement of neurochemical changes in the mediobasal hypothalamus of ovariectomized ewes during oestrus
C. Fabre-Nys, D. Blache, M.R. Hinton, J.A. Goode and K.M. Kendrick (France, UK) 282
Enhanced neurotrophic activity in Alzheimer's disease cortex is not associated with down-regulation of metallothionein-III (GIF)
J.C. Erickson, A.K. Sewell, L.T. Jensen, D.R. Winge and R.D. Palmiter (USA) 297
Changes in calcium currents during ethanol withdrawal in a genetic mouse model
J.L. Perez-Velazquez, T.A. Valiante and P.L. Carlen (Canada) 305

Short Communications

Inhibition of the 5-HT_3 receptor-mediated current by the protein kinase inhibitor, H-7
P. Fan (USA) 310
The inhibitory input from the substantia nigra to the mediodorsal nucleus neurons projecting to the prefrontal cortex in the cat
Y. Miyamoto and K. Jinnai (Japan) 313
Differential antinociceptive effects of sendide, a NK_1-receptor antagonist, and morphine in the capsaicin test
T. Sakurada, H. Yogo, K. Katsumata, K. Tan-No, S. Sakurada, K. Kisara and M. Ohba (Japan) 319
Complete cerebral ischemia with short-term survival in rats induced by cardiac arrest. I. Extracellular accumulation of Alzheimer's β-amyloid protein precursor in the brain
R. Pluta, E. Kida, A.S. Lossinsky, A.A. Golabek, M.J. Mossakowski and H.M. Wisniewski (Poland) 323
Stable vasopressin innervation in the degenerating human locus coeruleus in Alzheimer's disease
E.J. Van Zwieten, R. Ravid, W. Hoogendijk and D.F. Swaab (Netherlands) 329
The development of glial fibrillary acidic protein-positive cells and the appearance of laminin-like immunoreactivity in fetal olfactory bulb transplants
R. Doucette, J. Kott and L. Westrum (USA) 334
Inhibition of endogenous dopamine release in amphibian retina by L-2-amino-4-phosphonobutyric acid (L-AP_4) and *trans*-2-aminocyclopentane-1,3-dicarboxylate (ACPD)
J.H. Boatright, J.R. Gordon and P.M. Iuvone (USA) 339
Regulatory mechanism of the ventromedial hypothalamus in enhancing glucose uptake in skeletal muscles
Y. Minokoshi, Y. Okano and T. Shimazu (Japan) 343
Chronic social stress conditions differentially modify vulnerability to amphetamine self-administration
V. Lemaire, J.-M. Deminière and P. Mormède (France) 348
Comparison of neuronal responses to experimental ischemia in gerbil and rat hippocampal slices
J.D. Stittsworth Jr. and T.H. Lanthorn (USA) 353

Author Index 357